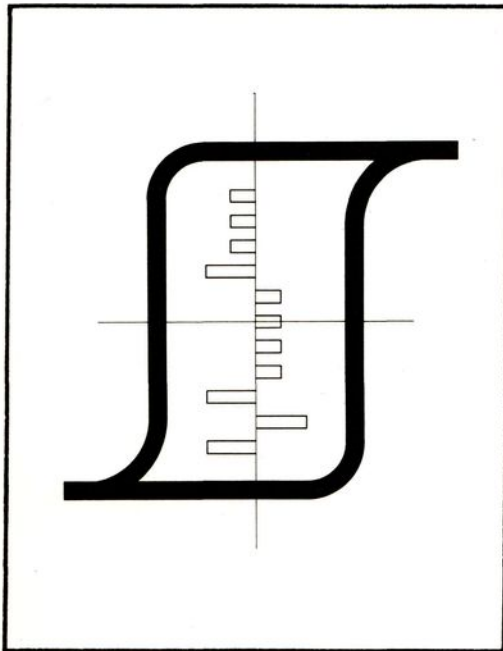




MEMORY PRODUCTS



FERRITE MEMORY CORE Type FC-3006

The FC-3006 is a 30 mil ferrite core which exhibits fast switching speed at moderate drive currents. It is recommended for use in memories having cycle times of 2 microseconds over a 100° C temperature range. At a nominal drive current of 800 milliamperes, FC-3006 has a switching time of approximately 0.46 microseconds.

MECHANICAL SPECIFICATIONS

Outside Diameter 0.030" ± 0.002"
Inside Diameter 0.020" ± 0.0015"
Thickness 0.008" ± 0.001"

Fracture strength: The core will not fracture when subjected to a compressive force of 100 grams applied between parallel plane surfaces normal to the core diameter.

TYPICAL OPERATING CONDITIONS (at 25°C):

Drive Currents

$I_r = I_w = 800$ milliamperes
 $I_{pw} = 400$ milliamperes
 $t_r = 0.10$ microseconds
 $t_d = 1.0$ microseconds

Output Signals

$uV_1 = 55$ millivolts
 $dV_z = 6$ millivolts
 $t_p = 0.24$ microseconds
 $t_s = 0.46$ microseconds

TEST SPECIFICATIONS (at 25°C):

Drive Current Pulse Sequence

All cores are tested using the pulse sequence shown in Figure 1. Cores are delivered 100% tested to a 0.015 AQL as defined by MIL STD-105D, Inspection Level II.

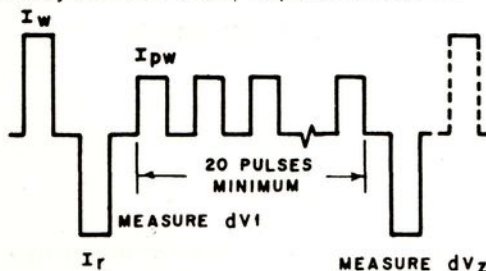


Figure 1.

Test Drive Conditions

$I_r = I_w = 800$ milliamperes ± 1%
 $I_{pw} = 488$ milliamperes ± 1%
 $t_r = 0.10$ microseconds
 $t_d = 1.0$ microseconds

Test Output Signals

$uV_1 = 50$ millivolts minimum. The maximum variation in uV_1 within a given lot will be no greater than ± 12%.
 $dV_z = 9$ millivolts maximum
 $t_p = 0.24 \pm .03$ microseconds
 $t_s = 0.50$ microseconds maximum

DRIVING CURRENT (I_m) = 800 ma
 (I_{pw}) = 488 ma

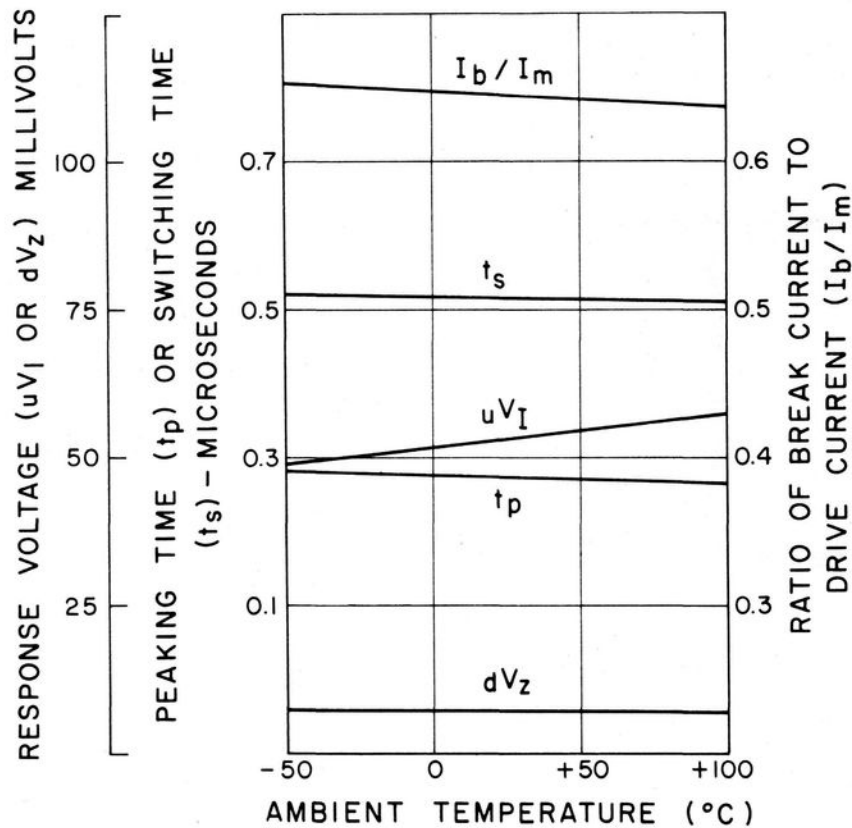


Figure 2. TYPICAL OPERATING CHARACTERISTICS FROM -50°C to $+100^{\circ}\text{C}$.

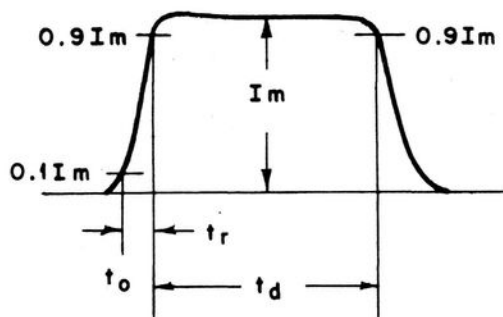


Figure 3. CURRENT PULSE

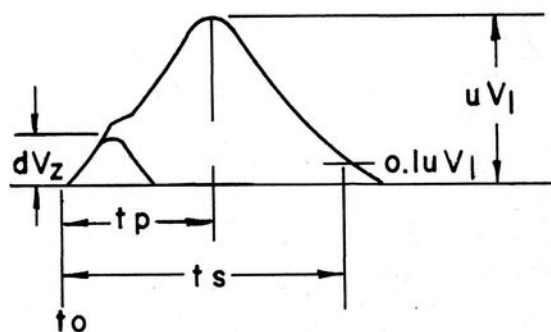


Figure 4. VOLTAGE RESPONSE

B Burroughs Corporation / ELECTRONIC COMPONENTS DIVISION
 PLAINFIELD, NEW JERSEY